



GSA-IT OCTO Technology Radar

March 30, 2022 | OCTO TechTalk

Billy Wales - OCTO

william.wales@gsa.gov

The Product:

It is meant to be an emerging tech ecosystem for GSA and other Federal innovators to **connect**, **collaborate**, and **create** new value by:

assessing emerging technologies critical to our nation's competitiveness and their work,

aligning with past, present, or prospective efforts to reduce duplication and spur innovation, and

acting on emerging technologies with insight and synergy.

It is meant to empower Federal innovators with actionable insights they seek to **monitor**, **measure**, and **mitigate** risks associated with **emerging technologies**.

What can the CTO Technology Radar Do?

<https://tech.gsa.gov/techradar/>

The Vision:

Tracking and sharing key emerging technologies relevant to our nation's competitiveness, our agency's charge as a Governmentwide leader in technology, and our careful consideration for our work and environment. We hope that Tech Radar (TR) becomes a collaboration medium and platform that gives our audience the tools to maximize value from current IT assets and identify new solutions to emerging challenges.

Users will be presented with key information including:

- Vetted summaries of core technology **capabilities**
- **GSA Business lines** in which the technology might have **applicability**
- **Current usage(?)**, points of contact, and approval status
- Laws, regulations, policy and governance associated with each technology
- Contracts, Vendors and Companies identified as key avenues for exploration
- Links and resources for further reading

Within a given key technology area, some of the questions the TR seeks to answer are:

- How do I unlock the assets we already possess?
- Is an **off-the-shelf** solution the right approach? or should we develop **in-house**? or is the answer somewhere in-between?
- Will this technology help me consolidate existing tools, reduce overhead, and/or realize other efficiencies?
- How might this technology help spur further innovation across the agency or business line?

Long-term, the Technology Radar is not intended to be another unidirectional, information-sharing website, but serve as an **interactive, collaborative** platform that **evolves** and improves as users recommend key technology areas, **share use cases**, and **engage** with colleagues considering or already using these technologies at GSA and/or within the full federal space.

Example User Research Pain Points

1

Decision

Not knowing whether a project would be a good enough candidate for an emerging technology.

2

Permission

Not having permission to innovate and explore. Wish for “a longer leash” from major stakeholders to make Government better.

3

Connection

Not belonging to a greater community that is considering emerging technologies so ideas and innovation can happen.

The Technology Radar is Persona based

<https://tech.gsa.gov/techradar/>

Example Personas:



Persona Name: **OCTO Decider (OCTO Olive)**

Persona's Location: **GSA IT**

Persona's Job/Role: **Technologist**

Persona's Previous Experience: **Technical background consisting of modern tools and techniques**



Persona Name: **Techy Tammy (ITPM/Technologist User)**

Persona's Location: **GSA IT**

Persona's Job/Role: **Technologists, Program Managers and Developers**

Persona's Previous Experience: **This user typically has a technical and/or program management background.**



Persona Name* **Changing Charlie**

Persona's Location* **Nationwide**

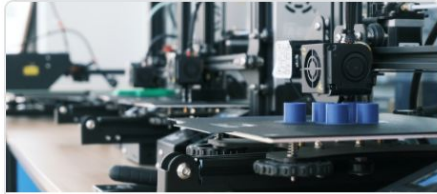
Persona's Job/Role* **Technologist, Visionary**

Persona's Previous Experience **This user generally has a technical (developer) and/or program management background**

Current Technology Radar Topics at a glance

<https://tech.gsa.gov/techradar/>

CTO TechRadar partners with GSA offices and Federal agencies to accelerate emerging tech assessment, alignment, and action by connecting Federal innovators with new content and collaborators to create new value.



3D Printing

FROM IMAGINATION TO REALITY

Three-dimensional (3D) printing technology, also known as additive manufacturing, is expected to mature substantially in the coming decades to allow the use of new materials, faster production speeds, and lower costs.

[More about 3D Printing](#)



AIOps

AUTOMATE IT OPERATIONS WITH AI AND ML

AIOps platforms utilize big data, modern machine learning and other advanced analytics technologies to directly and indirectly enhance IT operations (monitoring, automation and service desk) functions with proactive, personal and dynamic insight. AIOps platforms enable the concurrent use of multiple data sources, data collection methods, analytical (real-time and deep) technologies, and presentation technologies.

[More about AIOps](#)



Augmented Reality

IMMERSIVE DIGITAL EXPERIENCES WITHIN NATURAL ENVIRONMENTS

Augmented reality overlays digitally created content into the user's real-world environment. It allows individuals to immersively connect with one another, query information, interact, see, and "feel" the visual data presented as they perform tasks.

[More about Augmented Reality](#)



Virtual Presence

IMMERSIVE COLLABORATIVE ENVIRONMENTS

Virtual Presence (VP) is an immersive environment that enables users to feel as if they are physically present at an actual location with other users. It utilizes technologies such as Augmented Reality (AR) and Virtual Reality (VR) to deliver this experience.

[More about Virtual Presence](#)

Current Technology Radar Topic Categories

<https://tech.gsa.gov/techradar/>

Virtual Presence

Immersive collaborative environments



Contents

Background

Possible Applications at GSA

Adoption

Companies and Contracts

White House Priorities

Dependencies and Risks

Laws/Legislation, Regulations, and Policy

Supporting Documentation

Background

Virtual Presence (VP) is an immersive environment that enables users to feel as if they are physically present at an actual location with other users. It utilizes technologies such as Augmented Reality (AR) and Virtual Reality (VR) to deliver this experience.

Possible Applications at GSA

At the time of publishing, we have not identified any current efforts toward providing an immersive Virtual Presence (VP) at GSA. However, innovation in this area across Industry, Academia and Federal entities have been used to provide services that GSA would potentially benefit from. We are currently exploring some of these within GSA and expect to provide additional information as it becomes available. The following possibilities are solutions based on existing technologies highlighted in our [Companies and Contracts section](#).

Some potential use cases we've identified include, but are not limited to the following:

- **Office-like experiences** could enable teams to interact with each other as if they were actually there in one space. This is not just a Telepresence representation in 2D, but rather the ability to 'feel' and 'respond' with more than just audio & video like in traditional video mediums. The idea is more like being one of multiple avatars that are a persona of the person present in the Virtual Space.

Possible Applications at GSA

At the time of publishing, we have not identified any current efforts toward providing an immersive Virtual Presence (VP) at GSA. However, innovation in this area across Industry, Academia and Federal entities have been used to provide services that GSA would potentially benefit from. We are currently exploring some of these within GSA and expect to provide additional information as it becomes available. The following possibilities are solutions based on existing technologies highlighted in our [Companies and Contracts section](#).

Some potential use cases we've identified include, but are not limited to the following:

- **Office-like experiences** could enable teams to interact with each other as if they were actually there in one space. This is not just a Telepresence representation in 2D, but rather the ability to 'feel' and 'respond' with more than just audio & video like in traditional video mediums. The idea is more like being one of multiple avatars that are a persona of the person present in the Virtual Space.
- **Immersive training rooms** would allow the users to feel side by side and 'present' beyond the traditional powerpoint and webinar atmosphere currently used to bring a class together for learning. The type of experience that VP would deliver could allow physical aspects to be simulated in a way that breakout sessions, gathering around a whiteboard, taking notes with a digital pen on a virtual pad of paper come to life via sensors and the actions or motions of the participants. Imagine a glove a user might wear that would allow them to virtually hold a simulated pen in their hand in freespace then write on a digital pad they're holding in the other hand.
- **Building inspections, real estate touring, general maintenance**, and other explorations of physical properties in remote locations might be handled remotely with the proper on-site sensors, small to large maneuverable devices controlled with hand motions or other gestures and even simple joysticks. In such a scenario one or multiple senior subject matter experts could remotely walk a junior engineer or technician through an on-site repair.
- **Facilities walkthrough** using hololens during the RFP process or during industry day would enable potential bidders to see near-firsthand the exact conditions of a facility. This would eliminate the need for travel and/or multiple building tours.
- **Upkeep, inspections and maintenance** of GSA's large fleet of vehicles. The concept of being able to remotely analyze issues and possibly fix or notify the nearest location and set up an appointment to get under the actual hood might save countless hours of work that normally couldn't start until the vehicle is physically in the shop.

Q & A

Thank you!

GSA-IT OCTO

email us:
cto@gsa.gov

****Acting CTO****



**Beth Anne
Killoran**



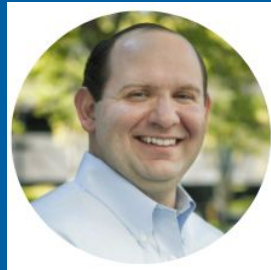
**Joseph
de Rosales**



**Jeff
Fredrickson**



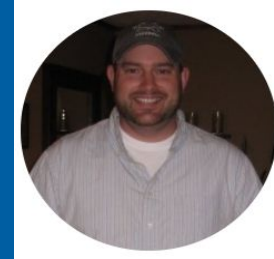
**Joe
Novak**



**Andrew
Politi**



**Cindy
Smith**



**Billy
Wales**